

a shallow cell, then a ring (run from the turn table) of Bell's cement, of one or two coats is all sufficient. This cement you may make yourselves by dissolving shellac in strong alcohol. It has the very great merit of drying very quickly and of resisting the action of glycerine, the last a most important quality. Put then your Solorina or other like object in the Farrants medium, with or without cell, and cover it with thin glass, put on so as to drive the air out by *pressing* down one side first and then slowly lowering the other to the horizontal, and under the gentle pressure of a wire clamp allow it to harden. Next remove the exuding surplus medium and in a few hours run from a brush a coat of Bell's cement around the edge of the cover and your slide will be done. These processes are more simple than they appear from a description. Carbolized or camphor water is also a good medium for mounting spores or sections of lichens and fungi in.

As for instruments; whilst I do not regard the turn-table or the section holder as essential, I do consider them as most important aids.

One other point. To clean glass covers I fill a small wide mouthed bottle with strong sulphuric acid, then *one by one* dip in my covers; then they are thoroughly coated with the acid, then after remaining in the acid several hours I pour it off, and by repeated washing in clean water remove most of the acidity, then I put in Labarraques solution, and after a few hours in this I pour it off and wash the bottle and glass with two or three waters and the covers are clean. To keep them so, I put in clean water, and cork the bottle. And to use the covers you have merely to dry them and they are ready for service.

In the above, hastily written, simple statements I have advanced little or nothing new, but have given the modes my own experience has approved, without regard to the sources whence they were derived. It is however fair, that I should state my attention was called to the great value of Bell's cement and Farrants medium by my friend, Prof. Barbeck, of Philadelphia, a most accomplished cryptogamic botanist.—J. T. ROTHROCK.

PTERIS AQUILINA.—I have received from Mr. F. A. White, an esteemed Florida correspondent, a specimen of *Pteris aquilina*, var. *caudata*, which measures 13 feet and 4 inches from the base of the stipe to apex of frond. The stalk measures from $\frac{3}{4}$ to 1 inch in circumference in its present dried state, and is exactly 6 feet in length, thus leaving 7 feet and 4 inches as the length of the frond. The first internode is 22 inches, the 2d, $16\frac{1}{4}$ inches, the 3d, $10\frac{3}{4}$ inches with a corresponding decrease up to the 16th internode which measures only $\frac{1}{2}$ an inch, the apex measuring 2 inches, and the remaining measurements being taken up by the spaces occupied by the bases of the connecting stalks of the primary divisions.

As the primary divisions were taken off to admit of folding the stalk and rachis for mailing without breaking, I can only guess at the probable breadth of the frond; but as the frond of the common brake is nearly triangular in outline, and generally quite as broad at the base

as it is long, this one could not have spread less than 7 feet across the lower primary divisions, each one of which must have been 3 if not $3\frac{1}{2}$ feet long with a corresponding breadth at the base.

The specimen was found in Brevard county and Mr. White writes me that there were others equally as large, *if not larger* in the same hummock.

Nearly all of the English authors state that the common brake in England often attains the height of 10 and 12 feet, and Hooker mentions that Dr. Spruce saw it growing in the Andes 14 feet high, but the dimensions of the present huge specimen exceed any heretofore recorded in this country, and make the old tradition of the Duke of Monmouth's hiding beneath the shelter of a clump of this fern both possible and probable.—GEO. E. DAVENPORT, *Medford, Mass., Feb. 10th, 1880.*

COLORED FLOWERS AND INSECTS.—I am sure many readers of the BOTANICAL GAZETTE feel indebted to your correspondent who showed in the last number that *Pringlea* was a cruciferous and not a coniferous plant, with some other facts in regard to the Flora of Kerguelen's Land. It would I am sure add to our obligation if he would tell us whether on this Island, or on "islands where winged insects are either scarce or wanting" there are plants with flowers having showy petals, or other properties attractive to winged insects. It does not, as he remarks, seem strange that a plant with inconspicuous flowers should exist where there are no winged insects to carry pollen,—but the converse which the *Pringlea* case may have been intended to illustrate, might be worthy of consideration. What I have read of *Pringlea* indicated a belief that it had in the past either failed to develop showy petals, because no winged insects had ever encouraged it to do so,—or that these showy petals became inconspicuous, after having lost, what it formerly enjoyed, the opportunity to secure insect aid,—but it would be interesting to know why other species have not gone and done likewise, if any such there be. Perhaps it is in this direction that the interest in *Pringlea* centers, as much as in whether it is a "cruciferous" or a "coniferous" plant. While this error certainly served to amuse, the information sought may instruct us.—*.

GROWTH OF TREES.—At a meeting of the Botanical Society of Edinburgh, held on Thursday, Jan. 8th, Sir Robert Christison read a paper of very considerable importance on the relative growth of the trunks of trees during 1879, as compared with 1878. Upwards of two years ago Sir Robert set on foot a system of measurements of the girths of a large number of well grown trees in Edinburgh and neighborhood, the measurements being made by himself with the same measuring-line and the same circumference to be measured secured by marking it at the time of first measurement with paint. The inclement character of the summer months of 1879, as compared with 1878, was described by reference to the daily maximum temperatures noted at the Edinburgh station of the Scottish Meteorological Society from

which it appeared that for the six months ending with September the mean for 1879 was fully 5° less than for 1878, the deficiency of day temperature amounting to nearly 10° . Of 11 deciduous trees, exclusive of oaks, the deficiency of growth during 1879 as compared with 1878 was 42 per cent.; of 17 evergreens of the pine tribe the deficiency was 20 per cent.; and of 7 oaks the deficiency was 10 per cent. The 7 oaks were of different species but they gave results closely agreeing with each other.—*Nature*.

BULLETIN OF THE TORREY BOTANICAL CLUB.—After ten years of quiet unassuming life, this publication has blossomed out in a fashion that gratifies its friends. Vol. VII, No. 1, appears with a cover, 12 pages of reading matter and two plates. Four years ago the Bulletin complimented us by saying that we had patterned after it, and now we intend to return the compliment and say that the Bulletin has at last followed the example set by the GAZETTE as to number of pages and cover and surpassed us in the matter of plates. The number before us contains four articles, the first page being devoted to proceedings of the Torrey club; the next seven are taken up by an article from Mr. C. F. Austin, in which he makes some very severe criticisms upon Lesquereux and James' last paper upon North American Mosses. Then comes a description of a new fungus, by W. R. Gerard, and it is to this that the two plates are devoted. The new fungus is a species of *Simblum*, a genus hitherto considered exclusively tropical. The type specimens were collected in Long Island. The fourth paper is a short list of plants, being additions to the flora of Richmond county, N. Y.

So the number ends, with no intimation whether this new order of things is to be kept up or not, probably deeming it safer to promise nothing. But, seriously, we are charmed with this evidence of progress and we wish our esteemed contemporary all the success it so richly deserves.

GOOD NEWS TO BOTANISTS.—The following correspondence explains itself. The facts stated may not be new to some exchangers, but have never been made known before from official sources.

LAFAYETTE, IND., Jan. 15, 1880.

D. M. KEY, P. M. General, Washington, D. C.:

DEAR SIR.—Under the present law cannot labels such as the enclosed (an ordinary botanical label) be placed in a package of specimens of dried plants without subjecting them to higher than merchandise rates?

Very Respectfully,

CHAS. R. BARNES.

POST OFFICE DEPARTMENT, OFFICE OF THE FIRST ASSISTANT POST-MASTER GENERAL.

WASHINGTON, Jan. 24, 1880.

Respectfully returned to Charles R. Barnes, Esq., Lafayette, Tippecanoe county, Indiana, with the statement that under the provisions of section 231, Postal Laws and Regulations, labels, such as that